

REMARKS

In this response, claims 5-8, 15, 17, 19, 25, 26, 39, 42, and 44 have been canceled, and new claims 45-55 added. Thus, claims 1-4, 9-14, 16, 18, 20-24, 27-38, 40, 41, 43, and 45-55 are now pending in this application (independent claims are claims 1, 50, and 54). Several claims have been amended as indicated above. The Office Action issued by the Examiner has been carefully considered.

INFORMATION DISCLOSURE STATEMENT

The Examiner indicates that he has not considered the information disclosure statement filed 30 November 2001 for stated failure to include an explanation of the relevance of each patent not in the English language. Applicant understands this to be limited to the foreign reference Germany document no. 19743137, dated 04/01/99, as listed on the filed PTO-1449. Applicant therefore files a new Information Disclosure Statement accompanying this response, which IDS includes an English machine translation of this German document. Applicant respectfully now requests review of same.

OBJECTIONS

Claim 27 has been amended above to correct a typographical error as suggested by the Examiner. No narrowing of claim scope is intended by this amendment.

REJECTIONS UNDER 35 U.S.C. § 102

Claims 1, 5-10, 12-15, 17-18, 22-23, 27-29, 32, 35, 40-42 and 44 are rejected under 35 U.S.C. § 102(e) as being anticipated by Agre et al. (US 6,208,247 B1, hereinafter Agre).

Applicant's independent claim 1 has been amended to recite that "the at least one substrate is flexible" and that "the at least one substrate physically supports the at least one processor and the at least one energy source." One example of a flexible substrate is illustrated in Fig. 42 of Applicant's specification.

In Fig. 1, Agre illustrates a node having an enclosure 1 which houses circuitry 2 and batteries 3. However, Agre does not teach that circuitry 2 or any substrate that might support a processor be flexible as recited by claim 1. Further, Agre does not teach that both the processor and the energy source be physically supported by a substrate. Instead, Agre illustrates batteries 3 as free-standing from circuitry 2. Also, Agre describes placing sensors 12 and microprocessor 20, among other items, on a chip 24, but describes and illustrates chip 24 as being separate from power supply 3 (Fig. 3; 6:8-13).

In addition, Applicant's claim 1 has been further amended to recite "an antenna incorporated in or carried on the at least one [flexible] substrate." Agre does not teach such an antenna on a flexible substrate as now recited in claim 1.

In light of the above, Agre does not disclose all elements of Applicant's amended claim 1. Accordingly, Applicant respectfully requests the allowance of claim 1. Please note that Applicant's independent claim 44 has been canceled above.

Applicant's new dependent claim 46, which depends from claim 1, recites that "the at least one substrate comprises a material suitable for unrolling as a sensor tape to different lengths." Nothing in Agre suggests such a structure be used.

Applicant's dependent claim 35, which depends from claim 1, recites that "the routing, processing, storing, and fusing are performed in response to at least one result of the energy detection." The Examiner cites Agre at 5:29-44. However, Agre here describes processing by DSP 18 and microprocessor 20, but does not describe any energy detection.

REJECTIONS UNDER 35 U.S.C. § 103

A. Claims 2-4 and 11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Agre in view of Fischer et al. (US 5,420,825, hereinafter Fischer).

Applicant's claims 2-4 and 11 each depend, directly or indirectly, from independent claim 1, and are believed allowable for the reasons discussed above. Fischer does not remedy the deficiencies of Agre discussed above.

More specifically, Fischer describes a composite material being supported by hull structure 10 (2:20-21), and that line 26 carries the signal from the layer to an electronic control device 29 (2:26-27). Fischer does not describe its final sensor structure as being flexible, and does not suggest that control device 29 be supported by the composite material on hull structure 10.

Accordingly, the allowance of claims 2-4 and 11 is requested.

B. Claim 6 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Agre in view of Bassen et al. (US 3,475,755, hereinafter Bassen).

Applicant's claim 6 depends from independent claim 1, and is believed allowable for the reasons discussed above for claim 1. Bassen does not remedy the deficiencies of Agre discussed above.

C. Claims 16 and 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Agre in view of Sohrabi et al. (A Self Organizing Wireless Sensor Network,

applicant's prior art, hereinafter Sohrabi) in further view of Poor et al. (US 6,028,857, hereinafter Poor).

Applicant's claim 16 depends from independent claim 1, and is believed allowable for the reasons discussed above for claim 1. Claim 25 has been canceled.

D. Claims 19-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Agre in view of Myer et al. (US 6,615,088 B1, hereinafter Myer).

Claim 19 has been canceled. Applicant's claims 20 and 21 each depend from independent claim 1, and are believed allowable for the reasons discussed above. Myer does not remedy the deficiencies of Agre discussed above.

E. Claim 24 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Agre as applied to claim 15 above in view of Davis et al. (US 5,742,829, hereinafter Davis).

Applicant's claim 24 depends from independent claim 1, and is believed allowable for the reasons discussed above for claim 1. Davis does not remedy the deficiencies of Agre discussed above.

F. Claim 26 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Agre as applied to claim 15 above in view of C. David Young (A Unifying Dynamic Distributed Multichannel TDMA Slot Assignment Protocol, applicant's submitted prior art, hereinafter Young).

Claim 26 has been canceled.

G. Claim 30 is rejected under 35 U.S.C § 103(a) as being unpatentable over Agre as applied to claim 15 above in view of Hayball et al. (US 6,233,610 B1, hereinafter Hayball).

Applicant's claim 30 depends from independent claim 1, and is believed allowable for the reasons discussed above for claim 1.

H. Claim 31 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Agre and Hayball as applied to claim 30 above in view of Sohrabi.

Applicant's claim 31 depends indirectly from independent claim 1, and is believed allowable for the reasons discussed above for claim 1.

I. Claim 33 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Agre as applied to claim 15 above in view of Clare (US 6,414,955 B1, hereinafter Clare).

Applicant's claim 33 depends from independent claim 1, and is believed allowable for the reasons discussed above for claim 1. Clare does not remedy the deficiencies of Agre discussed above.

J. Claims 34 and 36-39 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Agre as applied to claim 15 above in view of LeBlanc et al. (US 6,236,365 B1, hereinafter LeBlanc).

Applicant's claims 34 and 36-38 each depend, directly or indirectly, from independent claim 1, and are believed allowable for the reasons discussed above. LeBlanc does not remedy the deficiencies of Agre discussed above.

Claim 39 has been canceled.

K. Claim 43 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Agre as applied to claim 1 above in view of Mann et al. (US 6,809,653 B1, hereinafter Mann).

Applicant's claim 43 depends from independent claim 1, and is believed allowable for the reasons discussed above. Mann does not remedy the deficiencies of Agre discussed above.

DOUBLE PATENTING

Claims 1-5 and 7-44 are rejected on the ground of nonstatutory obviousness-type double patenting over claims 1-41 of U.S. Patent No. 6,735,630 B1.

Both U.S. Patent No. 6,735,630 and the current application are owned by the same assignee. Applicant intends to submit a terminal disclaimer to obviate this rejection, but Applicant kindly requests that this rejection be held in abeyance until allowable subject matter is indicated.

NEW CLAIMS

New claims 45-55 are added by amendment above. New claims 45-49 depend from independent claim 1 and are believed allowable for at least the reasons discussed above for claim 1. Dependent claim 46 was also specifically discussed above.

New independent claim 50 recites "a flexible substrate," and "an antenna incorporated in or carried on the substrate". Fig. 42 of Applicant's specification illustrates one example of such

an antenna. Claim 50 is believed allowable at least for its recitation of an antenna on a flexible substrate.

New claim 53 depends from independent claim 50 and recites that “the flexible substrate has an aerodynamic shape suitable for deployment by air.” None of the applied art teaches or suggests this feature.

New independent claim 54 recites that “the processor, the at least one sensor, and the battery are enclosed in the interior region of the [annular ring] antenna.” Nothing in Agre suggests that these components be positioned in this manner. New claim 55, which depends from claim 54, recites that this positioning provides “a resonant antenna structure,” and is believed allowable for this further reason.

CONCLUSION

Applicant’s other dependent claims not explicitly discussed above depend, directly or indirectly, from independent claims 1 and 50, and are believed allowable for at least the reasons discussed above.

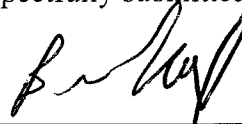
In view of the above, Applicant respectfully requests the reconsideration of this application and the allowance of all pending claims. It is respectfully submitted that the Examiner’s rejections have been successfully traversed and that the application is now in order for allowance. Applicant believes that the Examiner’s other arguments not discussed above are moot in light of the above arguments, but reserves the right to later address these arguments. Accordingly, reconsideration of the application and allowance thereof is courteously solicited.

The Commissioner is authorized to charge any additional fees associated with this filing, or credit any overpayment, to Deposit Account No. 50-2638. If an extension of time is required, this should be considered a petition therefor.

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Respectfully submitted,



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